

IN THE CLAIMS:

Claims 1-16, 27-34, 41-46, 53, and 55 were cancelled by Examiner's Amendment. Claims 21-26, 38-40, and 50-52 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1.-16. (Cancelled)

17. (Original) An electronic device package assembly comprising:
an interposer having at least one conductive pathway including an attachment pad on a first surface of the interposer;
an optically interactive device mounted to the interposer and having an active surface with an image sensitive area and at least one bond pad adjacent to the image sensitive area;
a transparent cover bonded over the image sensitive area with an adhesive material, wherein the adhesive material is adhered to the active surface of the optically interactive device between a peripheral edge of the image sensitive area and the at least one bond pad;
an electrical connection between the at least one bond pad and the attachment pad of the at least one conductive pathway of the interposer; and
a layer of encapsulant material over the first surface of the interposer covering the optically interactive device, wherein the transparent cover is exposed through the layer of encapsulant material.

18. (Original) The electronic device package assembly of claim 17, wherein a peripheral edge of the transparent cover is located at a point between the peripheral edge of the image sensitive area and the at least one bond pad of the optically interactive device.

19. (Original) The electronic device package assembly of claim 17, wherein the at least one conductive pathway of the interposer includes an external connection point on a second, opposing surface of the interposer.

20. (Original) The electronic device package assembly of claim 19, further comprising a discrete conductive element attached to the external connection point of the at least one conductive pathway.

21. (Currently amended) The electronic device package assembly of claim 17, wherein the optically interactive device is mounted to the interposer with a layer of adhesive material.

22. (Currently amended) The electronic device package assembly of claim 17, wherein the layer of encapsulant material comprises one of a silicon-filled polymer and a liquid crystal polymer.

23. (Currently amended) The electronic device package assembly of claim 17, wherein the optically interactive device comprises an image sensor chip.

24. (Currently amended) The electronic device package assembly of claim 17, wherein the electrical connection between the at least one bond pad of the optically interactive device and the attachment pad of the at least one conductive pathway of the interposer comprises a wire bond.

25. (Currently amended) The electronic device package assembly of claim 17, wherein the electrical connection between the at least one bond pad of the optically interactive device and the attachment pad of the at least one conductive pathway of the interposer comprises a conductive trace extending from the at least one bond pad on the active surface of the optically interactive device to a backside of the optically interactive device.

26. (Currently amended) The electronic device package assembly of claim 25, wherein the conductive trace is bonded to the attachment pad with a conductive bump comprising solder, conductive or conductor-filled epoxy, or metallic plating.

27.-34. (Cancelled)

35. (Original) An electronic device package assembly comprising:
an interposer having at least one conductive pathway including an attachment pad on a first surface of the interposer;
an optically interactive device mounted to the interposer and having an active surface with an image sensitive area and at least one conductive via extending from the active surface to an opposing, back surface of the optically interactive device, wherein the at least one conductive via has a conductive bump bonded to the attachment pad of the at least one conductive pathway of the interposer;
a transparent cover bonded over the image sensitive area with an adhesive material, wherein the adhesive material covers the active surface of the optically interactive device around a peripheral edge of the image sensitive area; and
a layer of encapsulant material over the first surface of the interposer covering the optically interactive device, wherein the transparent cover is exposed through the layer of encapsulant material.

36. (Original) The electronic device package assembly of claim 35, wherein the at least one conductive pathway of the interposer includes an external connection point on a second, opposing surface of the interposer.

37. (Original) The electronic device package assembly of claim 36, further comprising a discrete conductive element attached to the external connection point of the at least one conductive pathway.

38. (Currently amended) The electronic device package assembly of claim 35, wherein the layer of encapsulant material comprises one of a silicon-filled polymer and a liquid crystal polymer.

39. (Currently amended) The electronic device package assembly of claim 35, wherein the optically interactive device comprises an image sensor chip.

40. (Currently amended) The electronic device package assembly of claim 35, wherein the conductive bump of the at least one conductive via comprises solder, conductive or conductor-filled epoxy, or metallic plating.

41.-46. (Cancelled)

47. (Original) An electronic device package assembly comprising:
an interposer having at least one conductive pathway including an attachment pad on a first surface of the interposer;
an optically interactive device mounted to the interposer and having an active surface with an image sensitive area and at least one bond pad adjacent to the image sensitive area;
a wire bond extending from the at least one bond pad to the attachment pad of the at least one conductive pathway of the interposer;
a transparent cover bonded to the active surface of the optically interactive device with an adhesive material, wherein the adhesive material surrounds a peripheral edge of the image sensitive area of the optically interactive device and covers the at least one bond pad of the optically interactive device; and
a layer of encapsulant material over the first surface of the interposer covering the optically interactive device, wherein the transparent cover is exposed through the layer of encapsulant material.

48. (Original) The electronic device package assembly of claim 47, wherein the at least one conductive pathway of the interposer includes an external connection point on a second, opposing surface of the interposer.

49. (Original) The electronic device package assembly of claim 48, further comprising a discrete conductive element attached to the external connection point of the at least one conductive pathway.

50. (Currently amended) The electronic device package assembly of claim 47, wherein the optically interactive device is mounted to the interposer with a layer of adhesive material.

51. (Currently amended) The electronic device package assembly of claim 47, wherein the layer of encapsulant material comprises one of a silicon-filled polymer and a liquid crystal polymer.

52. (Currently amended) The electronic device package assembly of claim 47, wherein the optically interactive device comprises an image sensor chip.

53. (Cancelled)

54. (Original) An electronic device package assembly comprising:
a package housing having a cavity and at least one conductive pathway including an attachment pad within the cavity;
an interposer mounted within the cavity of the package housing having at least one conductive pathway including an attachment pad on a surface of the interposer, wherein the at least one conductive pathway of the interposer is electrically connected to the attachment pad within the cavity of the package housing;
an optically interactive device mounted to the interposer and having an active surface with an image sensitive area, wherein the optically interactive device is electrically connected to the attachment pad on the surface of the interposer;
a transparent cover bonded over the image sensitive area of the optically interactive device with an adhesive material, wherein the adhesive material is adhered to the active surface of the optically interactive device around a peripheral edge of the image sensitive area; and
a sealant material at least partially filling the cavity of the package housing.

55. (Cancelled)

56. (Original) An electronic device package assembly comprising:
a package housing having a cavity and at least one conductive pathway including an attachment pad within the cavity;
an optically interactive device mounted within the cavity of the package housing, wherein the optically interactive device is electrically connected to the attachment pad within the cavity;
a transparent cover bonded over the image sensitive area of the optically interactive device with an adhesive material, wherein the adhesive material is adhered to the active surface of the optically interactive device around a peripheral edge of the image sensitive area; and
a sealant material at least partially filling the cavity of the package housing.